

SAFETY HANDLE FOR PILINGS

FIELD OF THE INVENTION

This invention relates generally to the field of boating and in particular to a safety handle for use by individuals during the entry and exiting of a boat.

BACKGROUND OF THE INVENTION

A majority of preventable boating injuries occur when an individual attempts to either enter or exit a boat. Due to tides, style of boats, operator positioning, and so forth, the entry and exiting of a boat is known to be a major source of injury. An individual who steps from a fixed dock is often surprised by boat movement. Boat movement may be caused from something as complicated as a wave that bounces from a seawall, or as simple as the weight of an individual that is entering or exiting the boat. Unfortunately, any movement of a boat can result in injury should the individual be unprepared. Typically an individual employs the gunwale of a boat as the first step for entry and exit. The gunwale is the upper edge of a boat's side whose width is dependant upon the boat size. In any event, the gunwale surface is located above the boat deck and must be traversed during entry and exit. Knowledgeable boaters understand the liability they face should one of their passengers be injured on the boat so every attempt is made to stabilize the boat while passengers unfamiliar to the boat are

1 boarding. Even if a passenger is very familiar with a boat, such
2 as the boat owner or family member of the owner, carelessness can
3 quickly ruin an otherwise most pleasurable boating experience.

4 Boating courses, such as that offered by the United States
5 Power Squadrons, are used to teach the operator of a boat the
6 proper docking techniques. In particular, the operator of a vessel
7 is taught to position the entry location for the boat as close as
8 possible to a piling wherein an individual can use the piling to
9 grasp while boarding. Proper positioning of the boat to a piling
10 will also will provide the passenger with a visual reference of a
11 fixed object during the entry/exit procedure. Unfortunately, wood
12 pilings are often a source of injury in and of themselves...

13 Wood pilings are designed for solely for support of a dock and
14 will remain in place for as many years as possible. Eventually the
15 weather causes the wood to fall into such disrepair that the piling
16 must be replaced. Pilings are subjected to sun, rain, freezing,
17 wood worms, barnacles, and other wood like destroying items. So as
18 to obtain as long a life as possible, pilings are typically
19 pressure treated.

20 Pressure-treated pilings are those pilings which have been
21 commercially treated with a chemical wood preservative under
22 pressure to assure penetration of the chemical into the wood.
23 Chemical preservatives used by the industry to pressure treat wood
24 vary in effectiveness and also in animal, human and environmental

1 toxicity. Some preservatives are classified as "restricted-use
2 pesticides" which only certified persons may purchase and/or use.
3 The treated wood is not a restricted-use product, but precautions
4 for handling and disposal are necessary.

5 Water repellent products, with or without a fungicide, may
6 also be used to coat a piling since these products are not
7 restricted by the Environmental Protection Agency (EPA). These
8 chemicals may be brushed, dipped or sprayed on wood to protect the
9 surface but are short-lived. In Florida, a warm moist climate and
10 wet soils provide very favorable conditions for biological
11 organisms to decompose wood. When left untreated, wood exposed to
12 moisture (rain, condensation, high humidity, soil moisture, and sea
13 water) in a warm environment is readily attacked and rapidly
14 degraded by naturally occurring organisms. These organisms (fungi,
15 bacteria, termites, carpenter ants and several beetles and borers)
16 are ubiquitous and abundant in our soils and waterways.

17 When the piling is new, this oil based product can leave an
18 oily residual on those who touch the piling, or should an
19 individual pick-up a wood sliver, the wood treatment may lead to
20 infection. Once the outer coating begins to dry out, typically
21 after years of weather exposure, the dryness of the wood lends
22 itself to more wood slivers wherein most people will only touch a
23 piling if they absolutely must. This is typically when they are
24 falling with the resulting hand injuries from the wood to be

1 expected.

2 Attempts to address this problem have included the securement
3 of handles to pilings but due to nearly infinite variety of boat
4 placements due to the numerous boat designs, tidal changes and
5 operator placement, fixed handles may provide assistance to only a
6 few boaters. In addition, most marinas forbid anyone from
7 attaching handles, satellite dishes, or any other item to a piling
8 by use of nails and screws. Removal of items screwed into the wood
9 results in exposure of the inner wood to the elements which results
10 in a quicker drying of the wood, and of course a higher probability of
11 an individual obtaining wood splinters.

12 Thus, what is needed in the art is a portable handgrip that
13 prevents an individual from touching the wood of a piling while
14 being strategically positioned to ensure that an individual will
15 support themselves during the entry and exiting of a boat.
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1 SUMMARY OF THE INVENTION

2 The present invention satisfies this need through provision of
3 a handgrip that temporarily attaches to a wood piling. The
4 handgrip is preferably constructed of a flexible plastic base
5 member having a front surface with a series of wood engaging
6 members. The base member is secured to a wood piling by a pair of
7 straps secured to the base member and extend around the piling for
8 positioning the base member in a fixed position. The wood
9 engaging members help prevent the base member from sliding down the
10 piling. On the back surface of the base member is a hand grip for
11 use by the passengers for entry and exit to the boat. The
12 handgrip may be formed integral to the base member or coupled
13 thereto. The handgrip may also include a reflective material that
14 allows the handgrip to glow at night or employ a chemical
15 nightstick for night lumination.

16 An objective of the invention is to provide a handgrip that
17 can be strategically positioned to provide safe entry or exiting of
18 a boat.

19 Still another objective of the invention is to provide a
20 handgrip that can be secured to a piling without damaging the wood.

21 Yet another objective of the invention is to provide a
22 handgrip that is easy to install and remove.

23 Still another objective of the invention is to teach the use
24 of a handgrip for entry and exiting of a boat.

1 Still another objective of the invention is to teach the use
2 of a portable handgrip that include a means for illumination.

3 Other objectives and advantages of this invention will become
4 apparent from the following description taken in conjunction with
5 the accompanying drawings wherein are set forth, by way of
6 illustration and example, certain embodiments of this invention.
7 The drawings constitute a part of this specification and include
8 exemplary embodiments of the present invention and illustrate
9 various objects and features thereof.

10 BRIEF DESCRIPTION OF THE DRAWINGS

11 Figure 1 is a pictorial view of a boat tied to a dock with the
12 safety handle of the instant invention attached to a piling;

13 Figure 2 is a perspective view of the safety handle with
14 adjustable straps;

15 Figure 3 is a back view of Figure 2 depicting the wood
16 engaging members; and

17 Figure 4 is a perspective view of the safety handle with quick
18 release snap.

1 DETAILED DESCRIPTION OF THE INVENTION

2 Although the invention will be described in terms of specific
3 embodiments, it will be readily apparent to those skilled in this
4 art that various modifications, rearrangements and substitutions
5 can be made without departing from the spirit of the invention.
6 The scope of the invention is defined by the claims appended
7 hereto.

8 Referring to the Figures, set forth is safety handle 10 for
9 use and attachment to a piling 100. The safety handle consists of
10 a base member 12 constructed of a flexible sheet of material such
11 as plastic, a laminate, or grooved wood. The sheet of material has
12 a front surface 14, a back surface 16, a top edge 18, a bottom edge
13 20, a first edge 22, and a second edge 24. A hand grip 26 secured
14 to the back surface 16 may be integrally formed with the base
15 member or alternatively fastened to the base member by conventional
16 fasteners. By attaching of the hand grip to the base member by
17 conventional fasteners would allow the use of a teak hand grip to
18 be secured to a plastic base member. Similarly, an articulating
19 wood base member could have a plastic hand grip. In the basic
20 embodiment a pair of straps 28 and 30 is connected to the first
21 side edge 22 and are adapted to extend around a piling wherein each
22 strap is of sufficient length so as to provide engagement with the
23 second edge 24 of the base member. In a basic embodiment slot like
24 holes 32 and 34 allow the distal end 36 of the strap 28 to be

1 pulled through the slot like apertures 32 and 34. Similarly, the
2 distal end 38 of strap 30 is drawn through slot apertures 40 and 42
3 thereby securely holding the base member and hand grip against a
4 piling.

5 As shown in Figure 1 a boat 102 is shown placed along a dock
6 104 with pilings 100, 106, 108 and 110. When a boat is docked
7 there would be a stern line 112 extending from the piling 106 to
8 the transom 114 of the boat 102 to prevent the boat from moving
9 forward. Similarly, a line 116 would attach from piling 110 to the
10 bow 118 of the boat 102 to prevent the boat from moving backwards.
11 In this example, the safety handle 10 is secured to the piling 100
12 with straps 28 and 30 which wrap around the piling and once secured
13 thereto hand grip 26 is available for passengers of the boat to
14 enter and exit without physically touching the wood. As previously
15 mentioned new wood pilings would maintain a residual of a chemical
16 used to prevent early wood rotting from weather, parasites and so
17 forth. Older pilings that are weathered are no less dangerous as
18 they would be filled with splitters. Thus, the back surface 16
19 prevents an individuals hands from contacting the piling and the
20 hand grip 26 provides the passengers and owner of the vessel a safe
21 means of grasping the piling without fear of damage to the persons
22 hands.

23 Referring now to Figure 3 shown is the front surface 14 of the
24 base member with top edge 18, bottom edge 20, side edge 22, and

1 second side edge 24. Straps 28 and 30 are shown in an untied
2 position available for insertion through apertures 34, 36 and 40,
3 42 respectively. The front surface 14 of the base member includes
4 wood engaging tabs 50 which may consist of large protrusions such
5 as spikes for minute insertion into the wood piling, or small
6 protrusions that provide surface friction similar to sandpaper.
7 The preferred embodiment is to provide a texture that will not
8 physical mar the piling yet provides a frictional engagement to
9 inhibit movement of the base member once attached.

10 Referring now to Figure 4 the safety handle may include a hand
11 grip 60 having photoluminescent paint which is capable of retaining
12 light energy during the day and illuminating the handgrip position
13 in darkness. Alternatively, a chamber 62 may be provided wherein
14 a chemiluminescent chemical light stick 64 may be placed within
15 the hand grip 60. In this embodiment, the hand grip in this
16 embodiment is made out of a clear or translucent plastic wherein
17 the light stick illumination shines through the hand grip.
18 Further, only the inner edge of the handgrip may allow light stick
19 illumination wherein the base member is illuminated as if backlit.

20 The use of chemiluminescent chemical is well known in the art as
21 illustrated by U.S. Patent No. 3,576,987; colored light sticks may
22 also be used to provide an ambience to the handle such as those
23 found in U.S. Patent Nos. 3,816,326; 3,781,329; and 3,704,309.

24 The straps may include a quick release fastener 66 which

1 consists of a male insert 68 and female counterpart 70 with release
2 tabs 72 that would allow the installer to quickly attach or release
3 the strap 28 around a piling. The adjustability of the strap
4 remains wherein the proximal end 36 can be drawn through the quick
5 release fastener depending on the piling size. Typical pilings for
6 docks range from 7 inches at a minimum to upwards of 20 inch as a
7 maximum. This strap would preferably be made from nylon or the
8 like resilient material that maintains flexibility despite frequent
9 changing of sizes to accommodate different size pilings. This
10 would allow the boat owner to quickly release or attach the hand
11 grip to any piling whether it would be for a short visit at a
12 restaurant or an extended visit such as a live a board. While the
13 use of a screw or nail fastener would be contemplated by this
14 invention, most marinas are cognizant of the damage that a screw
15 or nail will cause to a piling. For this reason, it is a preferred
16 that attachment to the piling is by the use of straps.

17 As previously stated, the base member may be plastic or a wood
18 base can be employed. The use of plastic provides longevity and is
19 inexpensive to manufacture. However, the use of a wood, such as a
20 teak, with tongue and groove type slats is well known in the art
21 and would allow for the required ability of the base member to wrap
22 around a piling of different sizes. A wood member would be more
23 expensive to manufacture and maintain but provides an elegant hand
24 grip that would benefit expensive motor yachts.

1 In operation, the front surface of a flexible base member is
2 strategically positioned along a length of a piling, the base
3 member having a handgrip mounted or formed to a back surface of the
4 base member.

5 A proximal end of an attachment strap is coupled to a first
6 side edge of the base member having a length sufficient to encircle
7 a piling wherein a distal end of the strap is fastened to a second
8 side edge of the base member.

9 The strap is pulled taut to securely position the base member
10 against said piling and the handgrip is then available for use in
11 entry and exiting of a boat.

12 It is to be understood that while I have illustrated and
13 described a certain form of my invention, it is not to be limited
14 to the specific forms or arrangement of parts herein described and
15 shown. It will be apparent to those skilled in the art that
16 various changes may be made without departing from the scope of the
17 invention and the invention is not to be considered limited to what
18 is shown in the drawings and described in the specification.